**Unit 4. Medicine**

**The Making of Genius**

**Topic Preview**

**Work in small groups. Discuss the questions below.**

1. Look at the names: Pablo Picasso, Michael Jordan, Wolfgang Amadeus Mozart. Why is each person famous?
2. Have you ever met a skilled artist, athlete, or musician? How do you think he or she became so skilled?
3. Do you think people are born with natural talent? Or do you think they become skilled by practicing for a long time?

**Vocabulary Preview**

1. **The boldfaced words below are from a lecture about the making of genius. Read each sentence. Circle the letter of the word or phrase that is closest in meaning to the boldfaced word.**
   1. Tania said she couldn't have won the music award without the **support** of her parents and teachers.
      1. help
      2. success
      3. failure
   2. Some personality characteristics are **innate**, others are learned after birth.
      1. studied
      2. natural
      3. false
   3. Some parents believe they can **detect** talent in their children. They tell their friends that their one-year-old is a genius.
      1. ignore
      2. encourage
      3. notice
   4. He only has average general **intelligence**, but he is an excellent artist.
      1. ability to think
      2. ability to succeed
      3. specialized ability
   5. **Notwithstanding** her parents' lack of interest, Sylvie became an excellent concert pianist.
      1. because of
      2. in spite of
      3. an example of
   6. Professional athletes take part in intense training sessions, in which they work extremely hard.
      1. serious
      2. weak

c. modern

* 1. Training for the Olympics requires an **enormous** amount of work; athletes who want to compete must work extremely hard.
     1. very common
     2. very unusual
     3. very large
  2. Some people think their abilities have **limitations**, but with encouragement they can perform much better than expected.
     1. possibilities
     2. certainties
     3. boundaries
  3. A newspaper reporter **quoted** ThomasAlva Edison as saying, "Genius is one percent inspiration and ninety-nine percent perspiration."
     1. used exacdy the same words as
     2. used completely different words than
     3. changed the meaning of words used by
  4. **Persistence** is needed in order to succeed. You may fail several times before you get what you want.
     1. continuing a difficult activity
     2. ending a difficult activity

c. succeeding in a difficult activity

* 1. Children with a special **capacity** for music learn to play musical instruments easily.
     1. chance
     2. ability
     3. room
  2. My friend and his soccer coach are **incompatible**. They are always arguing.
     1. too different to work together
     2. almost exacdy the same
     3. related in some way

1. **The words below are also from the lecture. Read their definitions and the example phrases or sentences.**

* **DNA** *(n)* *technical*, deoxyribonucleic acid; an acid that carries genetic information in a cell
* **ease** /iz/(n) the quality of doing something easily or of being done easily: *Randy learns* new *languages with ease.* /I *was surprised by the ease with which I had gotten reservations.*
* gifted *(*adj) having the natural ability to do somettuag very well: *a* gifted poet
* **inherit** /in'herit/ *(v)* to get a quality, type of behavior, appearance, etc. from one of your parents: Tony inherited his father's nose.
* **training** *(n)* the process of teaching or being taught skills for a particular job: Did you have any training on the computer?
* **world-class** *(adj)* among the best in the world: *a world-class tennis player*

**Taking Better Notes**

**Noting Processes**

In lectures, it’s common for the speaker to describe a process. A process is a series of steps you take to reach a goal. It is used to give instructions or demonstrations (for example, in chemistry experiments) or explanations of procedures (for example, how diamonds are mined). When listening to an explanation of a process, you can increase your understanding by remembering two points:

* All the steps in the process have a logical order.
* Each step has a boundary, and often there is a clear boundary marker between steps.

Typical words and phrases used to show boundaries are:

First, second, third, etc. After (that) When

To start / begin with Next The final / last step

The first step Then Finally

Once this is completed Afterward

**Read the explanation of the movie-making process below. Underline the words and phrases that show step boundaries.**

The first step in making a movie is to find a property, which is the story that the movie will be based on. Once the property has been selected, the script can be prepared. This can be a very time-consuming process. However, after the script has been written, the director can choose the cast. This involves finding the actors and actresses who can do a good job in this particular film. Once this step has been completed, filming can begin. Then the final step involves editing the film.

When taking notes on a lecture that includes a process, it can be helpful to list and number each step in the process. For example, the steps for making a movie can be listed and numbered as follows.

*Making a movie*

* 1. *Find property – i.e., the story*
  2. *Prep. script*
  3. *Choose cast – i.e., actors and actresses*
  4. *Start filming*
  5. *Edit film*

List the steps in a process you know well (for example, making tea or buying a used car.) Then work with a partner. Student A, explain the process, using words and phrases to show the different steps. Student B, take notes. Compare the notes with the list. Then change roles.

When you listen to a lecture, try to note the steps in any process that you hear.

**Listening to the Lecture**

**Before You Learn**

You will hear a lecture about the making of genius. Write two topics you think the speaker might discuss.

1\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Listening for Main Ideas

1. **Close your book. Listen to the lecture and take notes.**
2. **Use your notes to complete the statements below. Circle a, b, or c.**
3. \_\_\_\_\_\_\_\_support the idea that practice is important.
4. Historical increases in performance
5. Olympic records from ancient Greece
6. Changes in athletic equipment
7. \_\_\_\_\_\_\_\_also supports the idea that practice is important.
8. The strong connection between diet and athletic performance
9. The weak connection among intelligence, memory, and specific skills
10. The effect of specialized knowledge
11. Along with practice, \_\_\_\_\_\_\_\_also contribute to skill development.
12. innate talent, general intelligence, and education
13. diet, exercise, and sleep
14. personality, motivation, and social support
15. To become an exceptional performer, most people must practice for years.
16. five
17. eight
18. ten
19. \_\_\_\_\_\_\_\_may be the most important sign that a child is gifted.
20. An early desire to practice
21. Ease of learning
22. Incompatibility with the parents
23. According to the speaker, \_\_\_\_\_\_\_\_cause exceptional skill development.
24. external factors, such as parental support,
25. innate abilities, such as general intelligence,
26. both external factors and innate abilities

**Listening for Details**

1. **Close your book. Listen to the lecture again. Add supporting details to your notes and correct any mistakes.**
2. **Use your notes to decide if the statements below are true or false. Write T (true) or F (false). Correct the false statements.**
3. Some people thought Wolfgang Amadeus Mozart had magical powers.
4. Expert chess players have better general memory skills than most people.
5. Self-confidence, persistence, and competitiveness play an important role in successful learning.
6. Mozart had been playing music for ten years before writing his first original masterpiece.
7. Expert musicians often show signs of greatness by the age of five.
8. About 15 percent of our personality characteristics and intelligence are genetically determined.
9. Working memory capacity is an inherited trait.
10. Ease of learning may indicate a child is gifted.

**Using Your Notes**

At the end of the lecture, the speaker summarizes the process of becoming highly skilled. The steps are listed below. Work with a partner. Use your notes to number the steps so that they are in the correct order. Compare answers as a class.

* The child gains higher levels of skill.
* The child's motivation and social support create a long-term commitment to practice.
* Personality characteristics are nurtured by the parents.
* The person is born with certain personality characteristics.
* Long-term intensive practice (that is, around ten years) results in extremely high levels of skill.
* The child shows an interest in some area.
* The parents support the child's interest.

Use your notes to write a summary of the lecture.

**Projects**

Imagine you are giving advice to a young person who wants to become a professional musician. Rank the pieces of advice below from 1 (most important) to 7 (least important). Compare and discuss your choices in a small group.

Study with a well-known teacher.

Talk to many professional musicians.

Practice extensively.

Perform in public frequently.

Make friends with other young people who want to be musicians.

Buy a high-quality musical instrument.

Attend many concerts.

Many people define intelligence as the ability to solve problems, think logically, and understand complex ideas. However, recent work in cognitive science and psychology has suggested that there are several types of intelligence, or multiple intelligences. Read the statements in the questionnaire. Circle the number that best describes you. Use the scale below.

4 Strongly agree 2Disagree

3Agree 1 Strongly disagree

|  |  |  |  |
| --- | --- | --- | --- |
| QUESTIONNAIRE |  |  |  |
| a. I like memorizing words. | 4 | 3 | 2 1 |
| b. I like the teacher to explain grammar to me. | 4 | 3 | 2 1 |
| с. I like making charts and diagrams. | 4 | 3 | 2 1 |
| d. I like drama and role plays. | 4 | 3 | 2 1 |
| е. I like singing songs in English. | 4 | 3 | 2 1 |
| f. I like group and pair interaction. | 4 | 3 | 2 1 |
| g. I like self-reflection through journal writing. | 4 | 3 | 2 1 |

Each lettered statement in the questionnaire corresponds to the type of intelligence below.

**a** = linguistic intelligence (ability to speak, write, or solve word problems)

**b** = logical-mathematical intelligence (ability to use numbers and logic or understand grammar rules)

**с** = spatial intelligence (ability to draw or use maps) d = bodily-kinesthetic intelligence (athletic skill or ability to pronounce a language)

**e** = musical intelligence (ability to use music and produce the intonation of a language)

**f** = interpersonal intelligence (ability to talk and communicate with other people)

**g** = intrapersonal intelligence (ability to use language to analyze oneself)

The number you circled indicates your preference for the corresponding type of intelligence:

4 High preference 2Moderately low preference

3Moderately high preference 1Low preference

For example, if you circled 4 for statement **a,** you strongly prefer to use linguistic intelligence, and if you circled *1* for statement **b**, you do not like to use logical-mathematical intelligence.

Do you think the correspondences correctly indicate your preferences? Discuss your answers in small groups.

3. Conduct library or Internet research on someone you consider a genius. Try to discover what factors contributed to the persons success. Give a five-minute report on that person to your classmates.